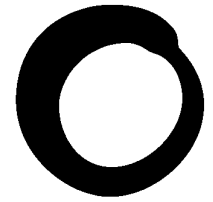


May 2011



**Friends of  
the Earth**

# **Consultation response:**

## **Fast-track review of feed-in tariffs**

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**Question 1:**

**Do you agree or disagree that there is a need to limit access to FITs for large scale solar PV installations in order to meet Spending Review targets? Please give reasons for your answer. If you agree, what do you think is the best way of doing this?**

**Disagree**

**1. Basis of the review**

**a) Spending review targets**

Friends of the Earth does not accept that the review should be conducted on the basis of keeping the FIT spend within the arbitrary budget defined in the Comprehensive Spending Review.

This 'cap' or spending envelope is a major shift from the original design of the policy that was not consulted on, and fundamentally undermines the scheme and its chances of success in meeting its stated aims.

The tariff levels for the FIT were designed in the set up of the scheme to deliver upon a level of ambition for sub-5MW renewable deployment – in the case of the scenario chosen, for 1.6% of electricity consumption by 2020 – as well as to mobilise new sections of society, individuals, communities, businesses and others outside the energy sector to take up renewable energy generation, on a 'rate of return' model.<sup>1</sup>

Moving to a system whereby the tariff levels are set on the basis of staying under an arbitrary limit means the policy is no longer being designed primarily to meet its goal, with consequences in terms of limiting the potential benefits of the scheme and what it can deliver, damaging investor confidence and undermining its cost-effectiveness.

Government policy should be focused on what it needs to deliver, not constrained by an arbitrary resource limit.

The 'rate of return' model in setting tariff levels is fundamental to the design of the feed-in tariff. It was chosen following extensive research by Element Energy/Poyry and, as stated in the original impact assessment on the design of the feed-in tariff, as being in line with international best practice on feed-in tariff policy. The principle of the system is that the tariff levels are set on the basis of delivering a specified rate of return, in this case 5-8%, across all technologies and scales, for all technologies supported by the FIT. The goal, as the 2010 impact assessment states, is to deliver "a fixed financial rate of return across all technologies."<sup>2</sup> This rate of return was selected on the basis of overcoming hurdle rates of investor groups sufficient to meet a designated level of ambition.<sup>3</sup>

It is important to note that Friends of the Earth argued at the time, and still believes, that this level of ambition is too low. It aimed to generate just 6TWh of final electricity consumption by 2020 out of a technical potential identified of 131TWh from under 5MW sources.<sup>4</sup> Friends of

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<sup>1</sup> Impact Assessment of Feed-in Tariffs for Small-Scale, Low Carbon, Electricity Generation, DECC, 1 February 2010

<sup>2</sup> Ibid, p8

<sup>3</sup> Ibid, p8

<sup>4</sup> Design of Feed-in Tariffs for Sub-5MW Electricity in Great Britain, Quantitative analysis for DECC, Poyry and

the Earth made the case for a tripling of this level of ambition, on the basis of greater cost-effectiveness, including a wider section of investors and the population (such as those on low incomes) in the scheme, as well as allowing decentralised energy to play its full role in contributing to our renewable and climate change goals.<sup>5</sup>

Friends of the Earth thinks that the feed-in tariff scheme should continue to operate on a 'rate of return' model, but one designed to deliver a higher level of ambition as previously argued for. If the Government wishes to deviate from this model it should set out the evidence, rational, costs and benefits, for the move to a new system, which the current consultation has not done.

**b) Definition of 'large-scale' solar and the solar farm 'threat'**

The definition of large scale-solar used within the consultation is inconsistent with the ministerial justification for the fast-track review.

In proposing the new tariff rates for over 50kW Solar PV installations, Greg Barker stated that the Coalition's aim was "to put a stop to the threat of larger-scale solar soaking up the cash"<sup>6</sup>. This followed Chris Huhne's statement that the review was to act on the 'solar farm threat'<sup>7</sup>.

The Impact Assessment for the Review itself defines solar farms as projects above 250kW<sup>8</sup> - yet proposes cuts in support for solar projects between 50kW and 250kW ranging from 38 to 51 per cent. Community-scale installations such as those on schools, hospitals and housing estates also fall into the over 50kW band. It is also clear that 250kW and above does not always constitute a solar farm. The Solar façade of the Co-Operative Tower in Manchester is 391 kWb and represents one of the best-known solar demonstration projects in the built environment in Europe.<sup>9</sup> Indeed, the consultation quotes Greg Barker as saying the problem was that the scheme failed to "anticipate industrial-scale, stand-alone, greenfield solar." Many larger scale solar schemes do not fall into this category, such as warehouse roof installations. For example Friends of the Earth understands that EcoAge has provided the Government with examples of many rooftop based schemes of 1MW and above, both in industrial locations, but also public and recreational sites, which are suited to the stated benefit of FITs in engaging communities in renewable energy and building a greater understanding of energy use to drive behaviour change. The clear majority of the 'solar farm' applications in planning, as stated in the consultation, are in fact of an entirely different size – with 24 out of a total of 31 in fact at the maximum 5MW level.<sup>10</sup> Reducing rates for projects 50kw upwards is not justifiable on this basis. It risks doing far more damage to the types of schemes the Government claims to want to support than it does to the overhyped 'solar farm' threat. This gives the worrying perception to investors that the Government is

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Element Energy, June 2009.

<sup>5</sup> [http://www.foe.co.uk/resource/briefings/feed\\_in\\_tariff\\_mps\\_briefing\\_dec\\_09.pdf](http://www.foe.co.uk/resource/briefings/feed_in_tariff_mps_briefing_dec_09.pdf)

<sup>6</sup> [http://www.decc.gov.uk/en/content/cms/news/pn11\\_027/pn11\\_027.aspx](http://www.decc.gov.uk/en/content/cms/news/pn11_027/pn11_027.aspx)

<sup>7</sup> [http://www.decc.gov.uk/en/content/cms/news/pn11\\_010/pn11\\_010.aspx](http://www.decc.gov.uk/en/content/cms/news/pn11_010/pn11_010.aspx)

<sup>8</sup> <http://www.decc.gov.uk/assets/decc/Consultations/fits-review/1439-fits-review-small-scale-cons-ia.pdf>

<sup>9</sup> <http://casestudies.pepeseu/archives/67>

<sup>10</sup> <http://www.decc.gov.uk/assets/decc/Consultations/fits-review/1439-fits-review-small-scale-cons-ia.pdf>

using the solar farm issue to seize the opportunity to make significant changes to the broader scope of the scheme.

It is true that there is anecdotal evidence that returns higher than necessary to bring forward investment were being made at this large scale. This does not justify the sudden and dramatic changes proposed to rates for all Solar PV over 50kW. The Government should instead review Solar PV above 500kW only, and make it clear that any changes to the tariff will be evidence based and in line with cost reductions to ensure continuity and stability in the industry. The Government should produce the evidence base for any proposed reductions, and ensure any new tariff rates give a sufficient rate of return to overcome investment hurdle rates, as per the original design of the feed-in tariff scheme.

**1. The effect of the proposed rates.**

The proposed rates do more than ‘limit access to the FIT for large scale solar’. The question is disingenuous in that the Government is well aware that the proposed rates a) are debilitating to the industry as they make all Solar PV over 50kW commercially unviable, not just ‘limiting access’, and that b) the proposed rates affect more than ‘large-scale’ solar or solar farms.

**Evidence that the proposed rates make Solar PV over 50kW commercially unviable.**

There is manifold evidence of the disastrous impact that the proposed rates would have. Firstly, the rates have been cut by far more than the cost of PV has fallen. The consultation states that the cost of PV has fallen by 30 per cent since the introduction of the scheme. But the table below shows the percentage cuts proposed for the proposed new bands is much higher:

Table 1: Percentage cuts to tariff for Solar PV in fast-track review

	<b>2011-2012 rates (p/kWh)</b>	<b>Proposed new 2011-2012 rates (p/kWh)</b>	<b>% cut</b>
<b>50-100 kW</b>	<b>32.9</b>	<b>19</b>	<b>42%</b>
<b>100-150 kW</b>	<b>30.7</b>	<b>19</b>	<b>38%</b>
<b>150-250 kW</b>	<b>30.7</b>	<b>15</b>	<b>51%</b>
<b>250-5000 kW</b>	<b>30.7</b>	<b>8.5</b>	<b>72%</b>

Friends of the Earth commissioned Arup in 2010 to look at the viability of small-scale renewables following the introduction of the feed-in tariff. On the basis of this model, Arup have assessed for the solar projects they looked at whether they would now be viable with the new proposed rates: they found that they would not:

“For systems in the 250kW and above band, the Internal Rate of Return [IRR] would reduce to 0.5 per cent, which is much too low to attract investment. For 200kW the IRR would reduce from 9 per cent to around 3.5 per cent. This would take it below the commercial hurdle rate and make it difficult to justify such a project on a commercial basis. This would imply that all interest in large scale PV would be ended with the new levels.”<sup>11</sup>

There is also industry consensus on the effect of the proposed levels:

The Renewable Energy Association, which represents over 350 solar companies, has said that the reductions for projects over 50kW would make them “totally unviable”<sup>12</sup>

Mike Smyth, non-executive director of community energy group Energy4all, one of Britain’s leading community renewable energy organisations, says that the Government has “effectively capped the scheme at 50kW... the proposed band for 50kW+ is such that it is not fundable except as a quasi charitable activity” .<sup>13</sup>

Andrew Lee of Sharp Solar has said: “The announcement by Greg Barker is extremely disappointing and effectively destroys the solar industry for installations above 50kw. We agree that the issue of solar farms needed to be addressed, however this over-zealous proposal will wipe out community projects like installations on schools, hospitals and churches, will halt business and industrial investment, and will limit solar to small-scale domestic projects. This is terrible news for the renewable energy sector – the steep rise in job creation will stop and morale within the industry will drop as a result of this remarkable u-turn.”<sup>14</sup>

Adrian Pike, CEO of renewable energy solutions company Anesco has said: “This FiT review will bring an end to the commercial PV market above 50KW.”<sup>15</sup>

Dulas Solar have told Friends of the Earth that: “Only once installation labour costs have reduced to circa £200 per kWp will systems between 50 & 150kWp be financially viable in the UK and this looks unlikely to happen”.<sup>16</sup> Jonathan Selwyn, Managing Director at Lark Energy has told Friends of the Earth that “at these tariff levels there will be nothing over 50kW for some years.”<sup>17</sup>

And concerns are not limited to the industry. The National Botanic Garden of Wales have told Friends of the Earth “Due to the FIT review and proposed FIT tariff the proposals for

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<sup>11</sup> Arup research provided directly to Friends of the Earth, re-assessment of projects in ‘Fit for the Future’ Arup, 2010, [http://www.foe.co.uk/resource/reports/fit\\_for\\_future.pdf](http://www.foe.co.uk/resource/reports/fit_for_future.pdf), where full methodology can be found.

<sup>12</sup> REA press release, 18<sup>th</sup> March 2011, [www.r-e-a.net/info/rea-news/the-coalition-government-makes-horrendous-strategic-mistake-over-solar/](http://www.r-e-a.net/info/rea-news/the-coalition-government-makes-horrendous-strategic-mistake-over-solar/)

<sup>13</sup> Please see Mike Symth’s submission to this consultation.

<sup>14</sup> <http://www.renewableenergyfocus.com/view/16765/uk-government-solar-criticism-sustained/>

<sup>15</sup> <http://www.clickgreen.org.uk/analysis/general-analysis/122045-industry-reacts-with-dismay-to-feed-in-tariff-cutbacks.html>

<sup>16</sup> Direct communication with Friends of the Earth

<sup>17</sup> Direct communication with Friends of the Earth

renewable energy (PV) at NBGW no longer have a valid business case.”<sup>18</sup> The impact on community-scale projects is explored more below.

### **a) Impact of review on community-scale projects**

Of particular concern is the impact of the review on community level schemes. The Coalition government is committed by the Coalition agreement to ‘encourage *community-owned renewable energy schemes where local people benefit from the power produced.*’

<sup>19</sup>Additionally, both Energy and Climate Change spokespeople of the now Coalition parties wrote to Friends of the Earth in April 2010 outlining their commitments to improve support for community and decentralised energy.<sup>20</sup> Greg Clark stated he wished to ‘maximize the potential for community renewables’.

However, making tariff rates for over 50kW commercially unviable threatens many community-scale projects. This excludes large sections of the population from benefitting from the feed-in tariff, adding weight to the accusation that FITs are only a scheme for the middle classes. For those who live in flats, have inappropriately located housing, are in the private rented sector or do not have access to capital, community, housing association or other collective schemes provide the only way to participate in the feed-in tariff.

The setting of the PV tariff at its current level has been important in allowing social landlords to take advantage of the scheme for the benefit of their communities. Ensuring sufficient tariff rates for community-scale schemes to generate sufficient return on investment to enable them to borrow capital is crucial. Additionally, local authorities need the ability to finance local renewables schemes and should be supported to develop and then replicate best practice models: soft loans should be made available for households (and businesses) without money in the bank. Ensuring local government, social housing and other public sector bodies are able to use to the scheme to the benefit of the communities they serve and removing barriers and creating incentives for them to do so is key. However, the proposed rates, along with changes to EIS in the Budget 2011, seem to seek to do the opposite. The consultation implies that community generation can go ahead in the under 50kW bracket – but this severely limits its potential. For example:

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<sup>18</sup> Direct communication with Friends of the Earth

<sup>19</sup> Coalition Agreement, 2010

[http://www.direct.gov.uk/prod\\_consum\\_dg/groups/dg\\_digitalassets/@dg/@en/documents/digitalasset/dg\\_187876.pdf](http://www.direct.gov.uk/prod_consum_dg/groups/dg_digitalassets/@dg/@en/documents/digitalasset/dg_187876.pdf)<sup>19</sup> Coalition Agreement, 2010

[http://www.direct.gov.uk/prod\\_consum\\_dg/groups/dg\\_digitalassets/@dg/@en/documents/digitalasset/dg\\_187876.pdf](http://www.direct.gov.uk/prod_consum_dg/groups/dg_digitalassets/@dg/@en/documents/digitalasset/dg_187876.pdf)

<sup>20</sup> [http://www.foe.co.uk/resource/briefings/decentrailed\\_energy\\_letter.pdf](http://www.foe.co.uk/resource/briefings/decentrailed_energy_letter.pdf)<sup>20</sup>

[http://www.foe.co.uk/resource/briefings/decentrailed\\_energy\\_letter.pdf](http://www.foe.co.uk/resource/briefings/decentrailed_energy_letter.pdf)

- West Oxford Community Renewables recently installed solar PV on a secondary school which generates 100kW<sup>21</sup>
- Energy4all has two projects of 70kW on secondary school roofs which it is now having to re-think.<sup>22</sup>

OVESCo, a community-energy generating company, has been developing a project that sits entirely within the Government's 'Big Society' vision. Their 98kW scheme in Lewes on a warehouse roof is under threat if it does not meet the 1<sup>st</sup> of August deadline for qualification for the current tariff rates.<sup>23</sup>

Managing Director of OVESCo, Chris Rowland evidences the impact on companies such as his:

"It is infuriating that just as we are about to launch our first scheme that is in line with Greg Barker's Big Society ambition, we are hit by this lack of vision at the top which totally scuppers the plans of many community groups across the UK. Perhaps the Minister did not mean to destroy the plans of the groups he also wants to see succeed, but without a stable and viable feed in tariff, community energy will never happen. Our scheme ticks all the government boxes: community-owned, community-funded and a real contribution to energy security and environmental benefit. We shall do everything we can to persuade the minister to change his mind on this. We are not a massive multi-national organisation milking the public purse for profit, but a local voluntary enterprise trying to do our bit for society."<sup>24</sup>

Additionally:

- Community Energy Warwickshire had planned two 70kW schemes on local hospitals, which are now at risk of downscaling or not going ahead<sup>25</sup>
- Lincolnshire Fire and Rescue station were planning a 300 to 400 panel solar field at Bardney in an area next to the fire station<sup>26</sup>
- Barnsley Football Club's project – designed to generate enough power for 140 homes (roughly 420kW) with panels on the two roofs and one wall of the club's stands – may not now go ahead.<sup>27</sup>

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<sup>21</sup> [http://www.solarpowerportal.co.uk/news/community\\_energy\\_projects\\_under\\_threat5478/](http://www.solarpowerportal.co.uk/news/community_energy_projects_under_threat5478/)

<sup>22</sup> See Energy4all response to this consultation.

<sup>23</sup> [http://www.sussexexpress.co.uk/news/local/lewes\\_football\\_club\\_set\\_to\\_be\\_solar\\_power\\_station\\_1\\_2558988](http://www.sussexexpress.co.uk/news/local/lewes_football_club_set_to_be_solar_power_station_1_2558988)

<sup>24</sup> [http://www.sussexexpress.co.uk/news/local/lewes\\_football\\_club\\_set\\_to\\_be\\_solar\\_power\\_station\\_1\\_2558988](http://www.sussexexpress.co.uk/news/local/lewes_football_club_set_to_be_solar_power_station_1_2558988)

<sup>25</sup> Please contact [info@cew.coop](mailto:info@cew.coop) for details.

<sup>26</sup> <http://www.thisislincolnshire.co.uk/environment/service-close-ahead/article-3211331-detail/article.html>

<sup>27</sup> <http://www.tribalfootball.com/articles/barnsley-reds-become-green-champions-1542621> and

[http://www.thestar.co.uk/sport/football/barnsley/solar\\_so\\_good\\_1\\_3242285](http://www.thestar.co.uk/sport/football/barnsley/solar_so_good_1_3242285)

In the short time the scheme has been up and running these are just some of the communities that have formed groups to take advantage of the opportunity to participate in the UK's green energy future. The review of the feed-in tariff threatens to halt this enthusiasm. It is clear that the consultation's proposition that this action is being taken to avoid funds being diverted from community (as well as domestic installations) does not stand up, with the review itself, the proposed tariff rates, and the financial cap limiting the potential for take off of projects that meet both the Government's Big Society and Low Carbon aims.

The consultation contends that the 'softer' benefits of feed-in tariffs – such as engaging the public and sparking behaviour change – are less for 'large-scale solar'.<sup>28</sup> However, the opposite would seem to be the case: installations like those listed above on schools, hospitals and football grounds are exactly the kind of community demonstration projects that are high-visibility, with a high foot-fall.

Commercial schemes on local businesses can have the same effect. Phil Michaels of JoJo, a Solar Installation company, says:

"There's absolutely no reason at all for going after the 50-200kW projects. These are incredibly valuable in carbon terms as they fit with standard big companies' warehouse and distribution and retail outlet roof spaces. Getting those sorts of projects going will have a big psychological and visual impact and could shift the industry along. They are nothing like the solar farms."<sup>29</sup>

#### **b) The affect of the review on the renewable energy industry and confidence**

The consultation states that an aim of the review is to 'prevent boom and bust' in the industry. However, the review and proposed slashing of the tariff rates after less than a year of operation of the scheme has severely affected the industry. Neither, if the feed-in tariff policy is changed from a rate of return model to a capped spending model, will future instability be avoided as such a framework would be threatened by constant review. The Government's recently published Control Framework for Levy-Funded Spending makes it clear that policies will be subject to repeated modification when the priority is keeping within a financial cap, rather than ensuring policy success and industry stability. In response to whether reviewed policies will be re-reviewed the document says that "regular review is a feature of all control framework policies."<sup>30</sup> This fundamentally undermines confidence of both the industry and investors that feed-in tariff rates, or indeed, that or other policies, will be untampered with for any given period of time – pushing up policy risk and therefore the

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<sup>28</sup> As noted above, solar PV is one of the most costly technologies supported by FITs. Consequently, the broader engagement aims described above are particularly important in justifying support for PV under FITs in the first place. These benefits are most evident at the domestic and community scale and generally become less discernible as installations become larger, more commercial and more remote from individuals and communities." Fast-track Consultation on fast-track review of feed-in tariffs, DECC March 2011, p15

<sup>29</sup> Quote provided to Friends of the Earth

<sup>30</sup> Control Framework for DECC levy-funded spending, Questions and Answers, DECC, 29 March 2011, p15

cost of capital, and ultimately the cost to the consumer per tonne of carbon saved. Greg Barker in November of last year promised 'TLC' for energy policy – transparency, longevity, and certainty.<sup>31</sup> Constant re-reviews are the antithesis of this.

The commercial sector is also damaged. Rod Pearson, managing director of Crealy Adventure Parks, who had been planning to invest in making 90 per cent of his energy use self-sustainable through roof-top solar projects receiving the FIT, argues that uncertainty increases the difficulties in financing: "With the government willing to make sweeping changes to policies at short notice, businesses will find it more difficult to draw up business plans and gain financial backing... The entrepreneurial spirit is still alive in Britain, but this makes it very frustrating."<sup>32</sup>

The impact on the industry of this review, far from being welcomed as providing certainty as the consultation suggests, has been complete disruption. Projects and investment have been shelved, put on hold or cancelled. For example, Triplepoint suspended the launch of its planned £100m Solar Income fund and is now awaiting "greater clarity" on the future of the feed-in tariff scheme before moving forward with its renewable energy investment plans.<sup>33</sup> Matrix has suspended its clean energy fund.<sup>34</sup> Low Carbon Investors (LCI) shelved all investment plans for large solar photovoltaic projects until the fast-track review is finalized and Triodos Bank is reconsidering whether to continue with solar investments.<sup>35</sup>

Scott Ferguson, project co-ordinator for AEE Renewables said: "Any project not already in planning...will now be put on ice until the dust settles and the true damage of the policy change is fully understood."<sup>36</sup> Jerry Stokes, President of Suntech Europe, a leading supplier of photovoltaic modules in Europe said: "This very disturbing sudden and massive reduction from previous tariffs damages attractiveness for investment and sustainable job creation in the UK and jeopardizes significant investments and planned investments already undertaken. FIT reduction is healthy for the longevity of the market and when well planned encourages both market growth and investment but also reduction in cost and rapid convergence to distributed energy costs – so called grid parity. Unfortunately, the proposals made in the consultation document have ignored the European and global best practice which has been established in countries whose long term commitments to supporting renewable energy is well ahead of the UK. We should learn from the mistakes made elsewhere rather than creating another mistake from which others will benefit."<sup>37</sup>

Amiram Roth-Deblon, Head of Business Development New Markets, juwi Solar said:

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<sup>31</sup> Greg Barker, November 2010, [www.decc.gov.uk/en/content/cms/news/micro\\_council/micro\\_council.aspx](http://www.decc.gov.uk/en/content/cms/news/micro_council/micro_council.aspx)

<sup>32</sup> <http://www.guardian.co.uk/environment/2011/mar/14/feedin-tariff-uturn-solar>

<sup>33</sup>

<http://www.businessgreen.com/bg/news/2029359/investment-funds-shelve-solar-plans-following-feed-tariff-review>

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

<sup>36</sup> <http://www.thisisdorset.co.uk/westerngazette/Solar-farm-plans-hold-review/article-3363867-detail/article.html>

<sup>37</sup> [http://www.pv-tech.org/guest\\_blog/uk\\_fit\\_review\\_we\\_will\\_not\\_be\\_moved?utm\\_source=pvtech-feeds&utm\\_medium=rss&utm\\_campaign=quest-blog-rss-feed](http://www.pv-tech.org/guest_blog/uk_fit_review_we_will_not_be_moved?utm_source=pvtech-feeds&utm_medium=rss&utm_campaign=quest-blog-rss-feed)

"It certainly puts all our developments on hold until we know what the FiT is. Further our trust in the Government is knocked. We will not invest further into the UK market unless the FiT changes for the better."<sup>38</sup>

**c) Impact on investor confidence in the renewable energy sector.**

There has been a wider impact on investor confidence in the Government's commitment to renewable energy as a whole. In 2010 the UK dropped from 5<sup>th</sup> to 13<sup>th</sup> in terms of renewable energy investment in the G20 economies according to the recent Pew report.<sup>39</sup>

Ernst and Young have said that "the whole investor market was totally disengaged as a result of the FiT being ripped up,"<sup>40</sup> while Daniel Guttman, a Director, at PwC Renewables and Clean Tech, reports that "At a high level, a review of FiTs so soon after their introduction does not help the UK's reputation as a location for cleantech investment...The other possible impact is that investors and businesses lose their trust in the UK's intentions towards other renewables and clean technology. This is regrettable given that the driver behind the FiT review was the desire to save £40m in 2013/14. This is a small amount of cash compared to other technologies and equals, for example, the installation of 10 offshore wind turbines."<sup>41</sup>

**d) Impact on jobs**

It is also important to note the impact of the review and proposed changes to the tariff rates and structure on job creation. The feed-in tariff has created 7,000 new jobs since its introduction and was estimated to grow to 17,000 jobs by the end of this year pre-review, which the REA now expects will not materialize unless the proposals are reversed.<sup>42</sup>

Additionally, mO3 Power chief executive, Ken Moss, has reported:

"A buoyant solar power sector would have stimulated at least 90,000 jobs by the time Government spending cuts really start to bite later this year if FiTs had remained where they were ...mO3 Power had plans to generate one Gigawatt of renewable power from solar parks on brown field sites in the UK...We were prepared to invest £2.3 billion and would have created 20,000 new jobs ourselves."<sup>43</sup>

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<sup>38</sup> [http://www.pv-tech.org/guest\\_blog/uk\\_fit\\_review\\_we\\_will\\_not\\_be\\_moved?utm\\_source=pvtech-feeds&utm\\_medium=rss&utm\\_campaign=guest-blog-rss-feed](http://www.pv-tech.org/guest_blog/uk_fit_review_we_will_not_be_moved?utm_source=pvtech-feeds&utm_medium=rss&utm_campaign=guest-blog-rss-feed)

<sup>39</sup> Pew Charitable Trust, 'Who is winning the clean energy race?' 2011, <http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Report/G-20Report-LOWRes-FINAL.pdf>

<sup>40</sup> <http://www.bbc.co.uk/news/business-12790613>

<sup>41</sup> PriceWaterhouseCoopers, 18 March 2011, [www.ukmediacentre.pwc.com/content/Detail.aspx?ReleaseID=4139&NewsAreaID=2](http://www.ukmediacentre.pwc.com/content/Detail.aspx?ReleaseID=4139&NewsAreaID=2)

<sup>42</sup> REA Survey, January 2010 <http://www.r-e-a.net/info/rea-news/150211REAFoEFITclarity/>

<sup>43</sup> [http://www.edie.net/news/news\\_story.asp?id=19734&channel=0&title=90%2C000+jobs+axed+by+FITs+cuts+claims+solar+developer](http://www.edie.net/news/news_story.asp?id=19734&channel=0&title=90%2C000+jobs+axed+by+FITs+cuts+claims+solar+developer)

David Cameron outlines low-carbon as a key sector in his January 2011 speech on growth.<sup>44</sup> The job creation potential of the industry in installation especially must be considered as a key benefit to weigh against the cost of the scheme if the Government is serious about promoting green growth - especially given the detrimental impact on confidence in other renewable energy sectors.

**Question 2:**

**Do you agree or disagree with the proposed new tariff bands and the accompanying proposed reduction of tariffs for PV installations in these bands? Please give reasons for your answer. If you disagree, please provide evidence to support an alternative.**

**Disagree.**

Please see the answer to question one, especially section (2) as to the proposed rates for all bands over 50kW leading to all projects over 50kW becoming commercially unviable. There is no rationale for the percentage cuts (referred to in table 1 in answer to question 1). They are not in line with the fall in costs of Solar PV, nor do they give a consistent or justified rate of return. These should be set in consultation with industry to give a rate of return high enough to overcome investor hurdle rates, taking into account the falling cost of PV, and the infancy of the industry in the UK and its need for stability.

Additionally, Friends of the Earth would like to take this opportunity to specifically reject the proposition in the consultation that the tariff for PV over 250kW is set on the basis of an equivalence to the most marginal technology needed to meet our renewable energy targets.

This is because firstly, Friends of the Earth disagrees with the assertion that larger-scale solar PV does not contribute to the benefits of engagement and strengthening of industry as outlined - please see evidence provided in response to question 1.

Secondly, the FIT tariff should be set specific to what is needed to provide the specified rate of return for a particular technology, as set out in the design on the feed-in tariff scheme.

Thirdly, Marginal Abatement Curves can be useful in policy appraisal but using them, to determine that it is not necessary to fund Solar PV is crude. The curve does not account for the policy cost required to deploy each technology. McKinsey warn that: "the costs calculated are different from the costs a consumer or company would see, as these ... would include taxes, subsidies, and different interest rates in calculations. Therefore, the curve cannot be used for determining switching economics between investments".<sup>45</sup> It is also noticeable that coal Carbon Capture and Storage is higher up the McKinsey cost curve than solar PV. Nor does it account for the 'hidden' benefits such as community engagement and delivery on the Big Society – visions which are central to the Government's agenda.

PV is currently more expensive than wind but that doesn't make it not worth supporting and unable to play a role in cutting UK emissions. Cost curves are static snapshots of a certain year (in this case the McKinsey curve 2030), they don't tell you where a technology might be

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<sup>44</sup> <http://www.number10.gov.uk/news/speeches-and-transcripts/2011/01/prime-ministers-speech-on-economic-growth-58486>

<sup>45</sup> McKinsey and Company, 2009. Pathways to a low carbon economy: Version 2 of the Global Greenhouse Gas Abatement Cost Curve.

on the curve five or ten years later with support. Wave generation is currently expensive yet everyone rightly considers it worth supporting to encourage investment in innovation and to get it to commercial scale deployment. Simply letting technologies fight it out based on their current cost is not a sensible strategy for ensuring we develop a diverse renewable energy mix and support emerging technologies.

**Question 3**

**Do you agree or disagree with the proposed timing of the change in tariffs including the implementation date of 1 August 2011 and that the tariff change will apply to all installations with an eligibility date on or after that date? Please give reasons for your answer. If you disagree, please provide evidence to support an alternative.**

**Disagree.**

The August 1<sup>st</sup> cut off date has led to many projects, businesses, and investors having lost time and money. Tariff rates should not be changed until April 2012.

**Question 4**

**Can you provide any further information or evidence on predicted uptake of installations or other insights that you think DECC should be aware of about how the market for PV is evolving in the light of FITs?**

No comment.

**Question 5**

**Do you agree or disagree with the proposed new tariff bands and tariffs for farm-scale AD? Please provide evidence to support your view. We would be particularly interested in quantitative evidence of the capital and operating costs of farm-scale AD schemes.**

**Disagree.**

Friends of the Earth is supportive of Anaerobic Digestion technology subject to other sustainability constraints (see [http://www.foe.co.uk/resource/briefings/anaerobic\\_digestion.pdf](http://www.foe.co.uk/resource/briefings/anaerobic_digestion.pdf) ). However it is more efficient and environmentally beneficial to use biogas for renewable heat rather than renewable electricity. Conversion of the gas to electricity is typically achieved at 35% efficiency, whereas the use of gas for heating in boilers typically operates at 90% efficiency.

**Question 6**

**Do you have any other views and associated evidence on the slow uptake of farm-scale AD under FITs to date?**

Instead of increasing AD tariffs under the FIT, tariffs should be increased under the RHI.

**Question 7**

**Do you consider that controls are necessary to prevent the wholesale expansion of energy crops for AD? If so what do you consider to be the best way to implement these controls to be considered in the comprehensive FITs review?**

Controls are absolutely essential to prevent the emergence of perverse incentives in relation to the use of energy crops. The answer, in part, is to minimise such incentives under FITs and build the environmental constraints into the RHI. Such 'sustainability' constraints need to be applied to biomass use as well as energy from biogas. They also need to be consistent with our legal obligations under the Waste Framework Directive, in particular with regard to the Waste Hierarchy, and other government policies on waste reduction targets and food security.